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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,864	07/02/2003	Alok Tripathi	42P16617	4391

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EXAMINER	
ODOM, CURTIS B	
ART UNIT	**PAPER NUMBER**
2611	

MAIL DATE	DELIVERY MODE
10/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/612,864	TRIPATHI ET AL.	
	Examiner	Art Unit	
	Curtis B. Odom	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 August 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10,12-20,22-26 and 33-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 17, and 33-36* is/are rejected.

7)☒ Claim(s) *2-10,12-16,18-20 and 22-26* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-10, 12-20, 22-26 and 33-36 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. Claims 12 and 22 are objected to because of the following informalities: Claim 12 depends upon canceled claim 11. Claim 22 depends upon canceled claim 21. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Spitalny et al. (U. S. Patent No. 5, 486, 791).

Regarding claim 1, Spitalny et al. discloses an apparatus (see Fig. 4) comprising:

a CMOS amplifier (Fig. 4, element 10, column 4, lines 37-46);

a CMOS gain circuit (Fig. 4, element 14B, column 3, lines 45-60) including CMOS switches (see column 4, lines 37-46) coupled to an output of the amplifier to provide at least two gain values by opening and closing switches (see column 4, lines 37-46) in response to the output of the amplifier;

a control circuit (not shown) to provide one of the at least two gain values by controlling the switches based on gain equations which satisfy desired conditions as described in column 4, lines 1-11.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 33 and 34 rejected under 35 U.S.C. 103(a) as being unpatentable over Spitalny et al. (U. S. Patent No. 5, 486, 791) in view of Kudoh (US 2003/0128767).

Regarding claims 33 and 34, Spitalny et al. does not disclose the apparatus comprises an equalizer to equalize inter-symbol interference generated by frequency dependent loss characteristics of printed circuit board traces or high speed point-to-point interconnects between two integrated circuits.

However, Kudoh discloses an equalizer (see Fig. 9, block 7, section 0016 and sections 0074-0078) with equalizes interference generated by frequency dependent loss characteristics (as described in section 0004) of printed circuit board traces (see section 0021) and high-speed point-to-point interconnects between two integrated circuits (see section 0005). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the apparatus of Spitalny et al. with the teachings of Kudoh since Kudoh states equalization restores the waveform of an original signal in a receiver (see section 0014).

7. Claims 17, 35, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kudoh (US 2003/0128767) in view of Spitalny et al. (U. S. Patent No. 5, 486, 791).

Regarding claim 17, Kudoh discloses a system (see Fig. 9) comprising:

a transmitter (Fig. 9, block 100);

a receiver (Fig. 9, block 200);

an interconnect (Fig. 9, element 2) coupled to the transmitter and the receiver;

wherein the receiver includes an equalization circuit (see Fig. 9, block 7);

Kudoh does not disclose the equalization circuit comprises a CMOS amplifier; a CMOS gain circuit coupled to an output of the CMOS amplifier, the CMOS gain circuit to provide at least two gain values in response to the output of the CMOS amplifier; and a control circuit to provide one of the at least two gain values as an output.

However, Spitalny et al. discloses an equalization circuit comprising a CMOS amplifier (Fig. 4, element 10, column 4, lines 37-46); a CMOS gain circuit (Fig. 4, element 14B, column 3, lines 45-60) including CMOS switches (see column 4, lines 37-46) coupled to an output of the amplifier to provide at least two gain values by opening and closing switches (see column 4,

lines 37-46) in response to the output of the amplifier; and a control circuit (not shown) to provide one of the at least two gain values by controlling the switches based on gain equations which satisfy desired conditions as described in column 4, lines 1-11. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the equalizer of Kudoh with the teachings of Spitalny et al. in order to optimize signal handling and bandwidth (see Spitalny et al., column 2, lines 61-67).

Regarding claims 35 and 36, Kudoh further discloses the transmitter and receiver are integrated circuits (see section 0005) on a printed circuit board (see section 0021) and the interconnect is a high speed interconnect on the circuit board (see section 0003), wherein the equalizer (see Fig. 9, block 7, section 0016 and sections 0074-0078) with equalizes interference generated by frequency dependent loss characteristics (as described in section 0004) of printed circuit board traces (see section 0021) and high-speed point-to-point interconnects between the two integrated circuits (see section 0005).

Allowable Subject Matter

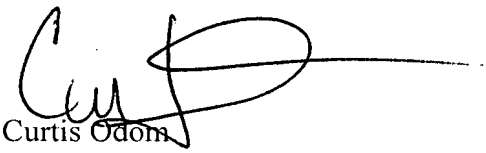
8. Claims 2-10, 12-16, 18-20, and 22-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form (and above objections are overcome) including all of the limitations of the base claim and any intervening claims.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Curtis B. Odom whose telephone number is 571-272-3046. The examiner can normally be reached on Monday- Friday, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on 571-272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Curtis Odom
October 29, 2007